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FOLEY &	LARDNI	ER	NGHIEM, MICHAEL P			
321 NORTH SUITE 2800		STREET	ART UNIT	PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

Application No. Office Action Summary Defend for Reply Defend for this communication appears on the cover sheet with the correspondence address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE main sense is to solve the state of the communication. If the select for reply specified above is less here they (30) stays, a reply whith the solvenum, as reply be included in the communication. If the select for reply specified above is less here they (30) stays, a reply whith the select selected period for early in state (30) stays is the considered from the selected period for early in the selected period for early in state (30) stays. It is selected to the selected period for early in state (30) stays in the selected period for early in state (30). It is selected to reply selected period for early in state (30) stays. It is selected to selected period for early in state (30) stays. It is selected to selected period for early in state (30) states. It is selected to selected the selected period for early in states. It is selected to selected the selected period for early in states. It is selected to selected the selected period for early selected to	34					^~~					
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DETAILED ACTION

Applicants' Request for Withdrawal of Office Action filed on November 15, 2002 has been acknowledged. The following new Office Action replaces the Office Action filed on September 11, 2002.

Specification

- 1. The substitute specification filed on January 8, 2002 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: a full clean form of the substitute specification was not submitted. Only pages 15-25 were received and could not replace the corresponding pages of the original specification. It is noted that page 25 of the substitute specification contains some information of page 26 of the original specification.
- 2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 27, "the system comprises a biological heart" is not described in the specification.

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35
U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-23, 25, 28-30, 32-34, 36, 38, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Gross et al. (US 5,764,509).

Gross et al. discloses all the claimed features of the invention.

Regarding claims 21, 29, and 32, Gross et al. discloses a method and computer system (Figs. 1, 2) for monitoring the operating condition of a system characterized by a succession of waveforms (Abstract, lines 2-3), comprising:

- obtaining a reference waveform having a reference sample count (expected values generated by time varying data, Abstract, lines 2-6);
- obtaining a monitored waveform from the system (current actual values,
 Abstract, line 7);
- resampling the monitored waveform with a digital fractional resampling filter (low pass filter, Fig. 2) such that the sample count of the monitored waveform matches

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the reference sample count of the reference waveform (correlate the reference signal Zk to the measured signal Zj, Fig. 2);

- comparing the resampled monitored waveform to the reference waveform to determine the operating condition of the system (Abstract, lines 7-9).

Regarding claims 22 and 33, Gross et al. discloses a pair-wise comparison of like sample values from each of the resampled monitored waveform and the reference waveform (column 61, lines 30-32).

Regarding claims 23, 30, and 34, Gross et al. discloses comparing the resampled monitored waveform to the reference waveform using a sequential probability ratio test (column 61, lines 49-52).

Regarding claims 25 and 36, Gross et al. discloses aligning the resampled monitored waveform with the reference waveform (correlating the measured signal to the reference signal, Fig. 2).

Regarding claims 28 and 39, Gross et al. discloses that the system comprises an industrial device (Abstract, lines 1-2).

Regarding claim 38, Gross et al. discloses that the system comprises a biological system (column 62, line 65 – column 63, line 2).

Allowable Subject Matter

4. Claims 24, 26, 27, 31, 35, and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons For Allowance

5. The method or combination as claimed wherein a computer system comprising obtaining variance information for each sample in the reference waveform, differencing the reference waveform and the resampled monitored waveform to produce a residual waveform, and performing a sequential probability ratio test on a sequence of samples in said residual waveform using the variance information (claims 24, 31, 35) or the aligning step includes the use of a bounded angle ratio test (claims 26, 37) or the system comprises a biological heart (claim 27).

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (571) 272-2272. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (571) 272-2269. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MICHAEL NGHIEM

PRIMARY EXAMINER

Michael Nghiem

December 5, 2003